

Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

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In the Matter of )  
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Service Rules for the 746-764 and )  
776-794 MHz Bands, and )  
Revision to Part 27 of the )  
Commission's Rules )

WT Docket No. 99-168

To: The Commission

**REPLY COMMENTS OF THE  
CONSUMER ELECTRONICS MANUFACTURERS ASSOCIATION**

The Consumer Electronics Manufacturers Association ("CEMA"), pursuant to Section 1.415 of the Commission's Rules, 47 C.F.R. § 1.415, hereby respectfully submits its reply to comments filed in response to the Notice of Proposed Rulemaking ("NPRM")<sup>1</sup> issued by the Commission in the above-captioned proceeding.

**I. INTRODUCTION**

In its initial comments in this proceeding, CEMA explained its interest in the Commission's proposal to permit use of the spectrum bands previously designated as television channels 60-62 and 65-67 [hereinafter "UHF spectrum"] for a variety of wireless or broadcasting services, opening the electronics manufacturing industry to new product opportunities.

CEMA strongly supported the Commission's efforts to adopt service rules that will permit new services on spectrum bands formerly designated exclusively for the UHF television

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<sup>1</sup> *In the Matter of Service Rules for the 746-764 and 776-794 MHz Bands, and Revisions to Part 27 of the Commission's Rules*, WT Docket No. 99-168, Notice of Proposed Rulemaking, FCC 99-97 (June 3, 1999) ("NPRM").

broadcast service. CEMA also expressed its interest in ensuring that, within the Commission's statutory obligations, the available spectrum is allocated to meet its best and most appropriate use. CEMA thus explained that the Commission should take this opportunity to create a terrestrial "Mobile Multimedia Broadcast Service" (hereinafter referred to as "MMBS").

## **II. THERE IS EXTENSIVE SUPPORT IN THE RECORD FOR THE COMMISSION TO TAKE AN ACTIVE ROLE IN THE PLANNING AND MANAGEMENT FOR THE USE OF THE UHF SPECTRUM AT ISSUE.**

Numerous parties in this proceeding have expressed the view that the Commission must not err in the direction of excessive flexibility in designing rules for the UHF spectrum that is the subject of this proceeding. Parties as diverse as the Association for Maximum Service Television and the American Mobile Telecommunications Association have expressed concern about the potential for destructive interference that can result from commingling incompatible broadcast and land mobile services.<sup>2</sup> AirTouch notes that the "inherent conflicts between such disparate services will require burdensome interference protection requirements that will prevent efficient spectrum use and compromise service to the public."<sup>3</sup>

The potential for harmful adjacent and co-channel interference is maximized by the *laissez-faire* approach to spectrum management exemplified by certain aspects of the NPRM and the proposed application of the Part 27 "generic" wireless rules. CEMA agrees with Motorola that "the landmark decision to reallocate UHF-TV channels 60-69 from the broadcast services is undermined by the proposed flexible service rules that do little to ensure the timely provision of communications services that benefit the US public."<sup>4</sup> CEMA also notes the comments of two

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<sup>2</sup> MSTV Comments at 10, AMTA Comments at 11-12.

<sup>3</sup> AirTouch Comments at 12-13.

<sup>4</sup> Motorola Comments at 3.

other parties, U S West and PCIA, who point out that excessive flexibility (*i.e.*, “a balkanized landscape of different licensees with different service offerings”) creates an atmosphere of uncertainty that deters investment by equipment manufacturers and will deter the development of any new services in the UHF spectrum.<sup>5</sup>

Spectrum management in the public interest, moreover, is not just a series of engineering judgments to resolve interference questions. The absence of spectrum policymaking results in a failed spectrum policy. As CEMA stated in its initial comments, this proceeding presents an exciting and historic opportunity for the Commission to create a new service that will meet the currently unmet needs of the American public for a new terrestrial Mobile Multimedia Broadcast Service. This opportunity will not be realized, however, unless the Commission acts decisively to establish service and technical rules that will foster the optimum use of these frequencies. As discussed below, the Commission should exercise its public interest authority consistent with the requirements of Section 303(y) of the Communications Act and allocate this UHF spectrum to MMBS.

### **III. THE COMMISSION SHOULD ACT IN THE PUBLIC INTEREST AND ALLOCATE THE UHF SPECTRUM AT ISSUE TO MOBILE MULTIMEDIA BROADCAST SERVICES.**

Much of the record in this proceeding deals with the conflicts between broadcasters and land mobile service providers regarding spectrum shared between these parties and the possibility of sharing the UHF spectrum at issue. CEMA notes that its comments were alone in proposing a new service that will optimize the use of these frequencies. MMBS is the optimal use because it combines the mobile reception features of radiotelephone services with the mass-market characteristics of broadcasting to meet the American public’s needs for high-quality

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<sup>5</sup> U S West Comments at 3-4, PCIA Comments at 2.

multichannel digital audio, information, and high-capacity data services. CEMA expects, however, that this proposal will be assailed from various quarters, precisely because MMBS is an innovative service: any allocation of the UHF spectrum to MMBS will not only limit the ability of current licensees to simply add these frequencies to their existing inventories (at relatively low auction prices) as supplemental to the services they already provide, but it will also create competitive pressures to use already licensed spectrum more effectively to meet the public's needs.

The application of Part 27 "generic" rules, by contrast, will have the opposite effect. The result will be balkanization on a geographic and channel-by-channel basis, in which no mass market for services or equipment can arise. Generic rules will result in generic services, useful perhaps to certain businesses that can use the spectrum to meet particular needs in particular localities, but unknown to the public at large. Moreover, absent any vision or plan for the use of the spectrum, auction values will be depressed, efficiencies of scope and scale will not be realized by equipment manufacturers, and this valuable spectrum will slowly be absorbed into the wireless infrastructure, with a possibility of a decades-long wait before market forces eventually move to exploit this resource to its fullest.

Development and implementation of MMBS will meet consumers' needs as those needs develop. No other mass-market service can or will meet the needs that MMBS will address. As noted by CEMA in its initial comments, terrestrial radio broadcasters have focused on developing "in-band/on-channel" ("IBOC") digital audio radio (DAR) technologies (that actually place digital signals in the first-adjacent spectrum channel to the "host" analog station). The

audio and reception qualities of these technologies have yet to be proven,<sup>6</sup> and there is no surfeit of spectrum that can be used to provide the degree of complementary and ancillary high-bandwidth data services that consumers are coming to expect. While the implementation of digital television proceeding will give analog television broadcasters the opportunity to provide High Definition Television (“HDTV”), multiplexed Standard Definition Television (“SDTV”), and program-related and ancillary data services, these services are not readily adaptable to mobile reception.<sup>7</sup> CEMA also noted that satellite digital audio radio licensees are expected to initiate their services shortly, but largely on a subscription basis, not resembling a mass-market, broadcasting-like service.

CEMA expects that MMBS, if implemented, will complement both broadcasting and mobile services. By establishing a spectrum allocation for mass-market service that will anticipate and meet consumers’ needs for high-quality multichannel audio and data, and mobile

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6 See CEMA Comments at 4 & n.2. IBOC DAR systems face a limiting technical constraint – co-existence with analog AM and FM radio – that inherently limits the technical capabilities and services that can, in theory, be achieved. CEMA hopes that IBOC technologies can be proven viable and cost effective. But MMBS stands on its own merits since it can provide an order of magnitude richer service offerings. MMBS can not only be immediately compelling with listeners and users, but also flexible and robust enough to meet future needs and expectations.

7 CEMA takes the opportunity in this proceeding to respond to irresponsible and hyperbolic misrepresentations circulated to broadcasters as to CEMA’s purposes in proposing a concept design for MMBS based on using coded orthogonal frequency division multiplex (“COFDM”), a transmission technology well suited for mobile reception. As regards digital television, COFDM is not a viable substitute for the 8VSB transmission technology encompassed in the ATSC standard developed for DTV, due to its relatively reduced coverage area and other reasons not related to this proceeding. Nor does CEMA envision MMBS as a substitute for DTV for purposes of free, over-the-air broadcasting, but rather as a new service, with licenses auctioned to service providers, that will meet consumers’ needs for high-quality multichannel audio and high-bandwidth data services.

reception, the Commission will stifle the “more-of the same” debate and foster key innovative thinking to devise service arrangements that will meet consumers’ needs into the 21<sup>st</sup> century.

Finally, CEMA believes that interference protection of existing TV broadcast stations using these channels is imperative, albeit interim, and this is most easily accomplished by establishing and specifying the technology to deploy for MMBS.<sup>8</sup> An adjunct to technology evaluations and integration for MMBS suggested by CEMA should include thorough assessment of interference to existing broadcasters and development of suitable protection requirements.

#### **IV. CONCLUSION**

For the reasons stated in the foregoing and in its initial comments in this proceeding, CEMA urges the Commission to designate the entire 36 MHz (746-764 MHz and 776-794 MHz

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<sup>8</sup> Developing interference protection requirements was a key issue raised in the comments of AMTA at 11-12, APTS at 3, Disney at 5-6, Intek at 4-5, ITA at 5-7, Motorola at 14, MSTV at 10, US West at 8, and TIA at 2.

bands) to create a terrestrial Mobile Multimedia Broadcast Service, consistent with the recommendations set forth in CEMA's pleadings, and not to impose Part 27 requirements on this new service.

Respectfully submitted,

**Consumer Electronics  
Manufacturers Association**

By:

A handwritten signature in dark ink, appearing to read "Gary S. Klein". The signature is fluid and cursive, with a long horizontal stroke at the end.

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